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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,893	03/04/2004	Minekazu Sakai	01-568	4797

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POSZ LAW GROUP, PLC
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SUITE 101
RESTON, VA 20191

EXAMINER

MILLER, TAKISHA S

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/791,893

Applicant(s)

SAKAI, MINEKAZU

Examiner

Takisha Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED Final ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1, 3, 6-11, 13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota (5,894,091).

- a. With respect to claims 1 and 6, Kubota teaches a sensor (2) comprising a plurality of sensors (J1-J4/K1-K4) for detecting a mechanical quantity based on capacitances among fixed electrodes (A-F) and moving electrodes (G) coupled to beams (Fig.2)(Col.2, lines 49-67); wherein each of the plurality of sensors generates an output signal which are summed together to provide a detection signal (Col.9, lines 48-67)(Figs.4,5).

- b. With respect to claims 3 and 13, Kubota teaches sensor (2) wherein said plurality of sensors is formed on a common semiconductor substrate (53)(Fig.6).

- c. With respect to claim 7, Kubota teaches wherein output lines from each of the plurality of sensors (J1-J4/K1-K4) transmitting the output signals are connected in parallel (Fig.4).

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- d. With respect to claim 8, Kuboto teaches wherein each of the output signals is added in parallel (Fig.5).
- e. With respect to claims 9-11 and 17, Kuboto teaches a first sensor (J2) oriented in a first direction (Y) for detecting a first mechanical quantity and generating a first output signal; a second sensor (J4) oriented in the first direction (Y) for detecting a second mechanical quantity and generating a second output signal; a third sensor (K1) oriented in the first direction (Y) for detecting a third mechanical quantity and generating a third output signal (Figs.3/5).
- f. With respect to claims 15 and 16, Kuboto teaches a sensor (2) comprising fixed electrodes (A-F), a weight (H), and moving electrodes (G); wherein the moving electrodes are interleaved with the fixed electrodes in a comb-like fashion (Col. 6, line 50- Col. 7, line 10).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 5. Claims 2,4,5,12 and 14 are rejected under 35 U.S.C. 103(a) as being obvious over Kuboto.

Kuboto discloses a sensor (2) with a plurality of sensors formed on a common substrate (53). Kuboto fails to teach the plurality of sensors formed on different substrates and/or formed

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to be stacked on a common substrate. The use of the particular type of formation process by Applicant is considered to be nothing more than the use of one of numerous and well known alternate types formation processes that a person having ordinary skill in the art would have been able to provide the above limitations using routine experimentation in order to secure a plurality of sensors to a substrate for the purpose of detecting a mechanical quantity as already suggested by Kuboto.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (US 2002/0011111) teaches an acceleration sensor.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha Miller whose telephone number is (571) 272-2184. The examiner can normally be reached on Monday - Friday (7:00 am - 3:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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